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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/092,756  | 03/08/2002  | Junichi Ikeda        | 112176              | 2862             |
| 25944   | 7590        | 03/26/2004           | EXAMINER            |                  |
| OLIFF & BERRIDGE, PLC<br>P.O. BOX 19928<br>ALEXANDRIA, VA 22320 |             |                      |                     | CHANG, VICTOR S  |
|   |             | ART UNIT             |                     | PAPER NUMBER     |
|   |             |                      |                     | 1771             |

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                            |                     |
|------------------------------|----------------------------|---------------------|
| <b>Office Action Summary</b> | <b>Application No.</b>     | <b>Applicant(s)</b> |
|                              | 10/092,756                 | IKEDA ET AL.        |
|                              | Examiner<br>Victor S Chang | Art Unit<br>1771    |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,2 and 4-11 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,2 and 4-11 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 08 March 2002 is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

|  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____ .  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/24/02, 3/8/02</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____.                                   |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of Group I (claims 1, 2 and 4-11) in Response dated 2/13/2004 is acknowledged. The traversal is on the ground(s) that "the search and examination of the entire application could be made without serious burden" (Response, page 1). This is not found persuasive because these inventions are distinct for the reasons given in Paper No. 012104 and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Objections***

2. Claim 8 is objected to because of the following informalities:

Claim 8 recites an improper Markush group. A proper Markush format is "wherein R is a material selected from the group consisting of A, B and C." See MPEP § 2173.05(h).

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 4-11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

For claims 4-11, it is noted that Example 1 teaches that adhesive polymer layers on both sides of a supporting layer are obtained by UV irradiation of urethane prepolymer, which is polymerized and cured (Specification, page 15, lines 16-20). The Examiner notes that such a method of forming adhesive polymer layer is unexpected and unobvious, since it is common and well known that a cured polymer inherently lacks adhesiveness, due to a greatly reduced polymer chain mobility after the polymer is cured (crosslinked), as evidenced by the teachings of JP 3-294376 (Abstract), which is directed to a method of forming a printing roll. JP '376 teaches that a polymeric printing plate can be adhered to a printing roll by using a photo-curable adhesive, and after completion of printing, the printing plate can be readily detached and removed by irradiation curing of the photo-curable adhesive. As such, the Examiner notes that in the absence of a disclosure regarding how a cured polymer can be adhesive, the Specification lacks required enablement in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1, 2 and 4-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is noted that many claims are narrative in form and replete with informalities, vague and indefinite phrases, rendering the claims incomprehensible. For example:

In claim 1, lines 1-3, the recitation "which is impregnated into ... printing relief" is clearly directed to the use of the prepolymer, and bears no weight in the patentability. A proper rewrite as a separate claim of process of using or deletion is suggested.

In claim 1, line 5, the phrase "is determined by" is indefinite, because it is unclear to the Examiner whether the clause is "open" or "close" ended. Rewrite with "comprising" or "consisting of" clause is suggested. For the purpose of this Office action, it is presumed to be a "comprising" clause.

In claim 1, lines 13-17, the Examiner suggests to rewrite the elements –O-D-O- and –O-E in Markush format, so as to be consistent with the format of remaining elements, e.g., A-O-, etc.

In claim 1, lines 12-13, the phrase "t is a number for making the number average molecular weight" is vague and indefinite, i.e., in the absence of molecular weight of formula [I], it is unclear as to the scope of the range.

In claims 4, lines 1-2, the process of using recitation "to fix a relief resin film onto a printing base of a printing machine" renders the claim confusing, and a rewrite as a separate claim or deletion is suggested.

Also, in claim 4, lines 3-6, the structural relations between various elements are vague, indefinite and confusing, the Examiner suggests a complete rewrite to clarify the relations. For example, at line 3, please replace “,” after “polymer, with --formed from a--; and also delete “from an” after cured”, so as to clarify the scope of each instantly claimed element.

Additionally, in claim 4, the Examiner notes that since formula [I], at lines 7-22, has been recited in claim 1, the repeating of formula [I] in claim 4 appears to render the claim language unnecessarily prolix. The Examiner suggests that claim should be rewritten so as to conform to current U.S. practice, e.g., formula [I] can be recited as being the prepolymer composition of claim 1.

In claim 7, lines 3-4, the Examiner notes that it appears that the hardness is related to cured adhesive polymer, because it is known that uncured acrylate urethane adhesive is generally a viscous fluid which hardly posses measurable hardness. Further, the thickness appears to be directed to the adhesive layer, not “adhesive polymer” per se, which lacks structural element. Clarification (including corresponding Specification) is required.

In addition, please correct any other informality which may have been overlooked.

### ***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

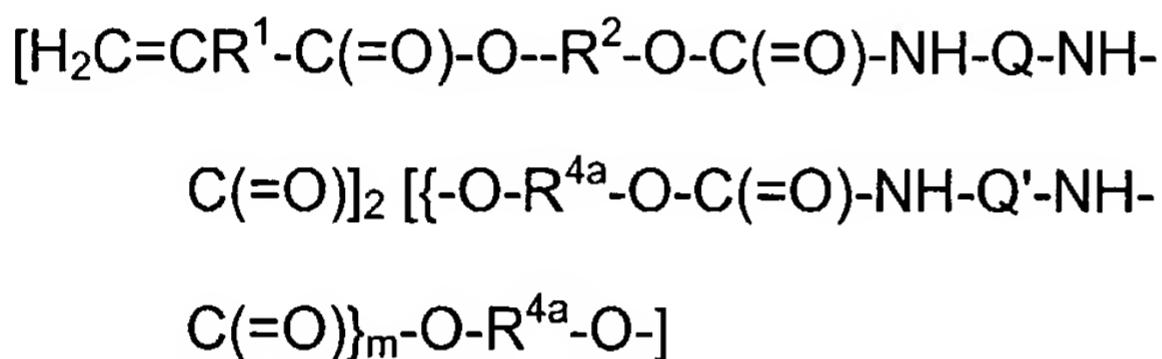
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by

Huver et al. (US 5700891).

Huver's invention is directed to an adhesive composition comprising an activator system for free-radical polymerizations and a free-radical polymerizable compound of the general formula:



wherein

m is from 0 to 10;

R<sup>1</sup> is hydrogen or a methyl group;

R<sup>2</sup> is a linear or branched chain alkyl group containing from 2 to 6 carbon atoms or an alkylene oxide containing from 4 to 21 carbon atoms;

Q and Q' independently are aromatic, aliphatic or cycloaliphatic groups containing from 6 to 18 carbon atoms which are derived from the basic diisocyanate or diisocyanate mixtures; and

R<sup>4a</sup> is derived from a polyesterdiol having a C:O ratio of >2.6, a C:H ratio of <10, and a molecular weight of from 1000 to 20,000; and an activator system for free-radical polymerization of said compound (Abstract and column 16, line 66 to column 17, line 21).

Art Unit: 1771

Huver also teaches that the composition can be prepared according to per se known prior art methods by first reacting an acrylate ( $R^1=H$ ) or methacrylate ( $R^1=CH_3$ ) containing hydroxy groups in the ester group with compounds containing isocyanate groups to form urethane groups (column 3, lines 19-23).

For claims 1 and 2,  $H_2C=CR^1-C(=O)-O-$  reads on instantly claimed A-O- and -O-E; Q and Q' reads on -B-;  $R^{4a}$  reads on polyester polyol;  $R^2$  reads on -O-D-O-; and -O-R<sup>4a</sup>-O- inherently reads on the polyester element of  $-O-C_pH_q-(O-COC_rH_s-CO-O-C_pH_q)_t-O-$  in view of the molecular weight being in the range from 1000 to 20,000, as set forth above.

Claims lack novelty.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In addition, the following references are cited of interest for making printing roll:

US 5715750 to Govaard is directed to a printing form attachment device. In Fig. 1, Govaard shows a support layer 2 between two adhesive layers 5 and 6 for attaching a printing relief 3 to a printing cylinder 7.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor S Chang whose telephone number is 571-272-1474. The examiner can normally be reached on 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel H Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Victor S Chang*  
Victor S Chang  
Examiner  
Art Unit 1771

3/18/2004